



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,139	08/29/2003	William J. Troyer	1880A1	1169

7590 02/18/2009
PPG INDUSTRIES, INC.
Intellectual Property Department
One PPG Place
Pittsburgh, PA 15272

EXAMINER

MANSFIELD, THOMAS L

ART UNIT	PAPER NUMBER
----------	--------------

3624

MAIL DATE	DELIVERY MODE
-----------	---------------

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/652,139
Filing Date: August 29, 2003
Appellant(s): TROYER ET AL.

William Troyer
David Brocious
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 17 November 2008 appealing from the Office action mailed 26 June 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Li (U.S. Pub. No. 2002/0072808)

Kirkwood et al. (U.S. Pub. No. 2003/0182181)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 4, 7-13, 15, 16, and 18-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Li (U.S. Pub. No. 2002/0072808).

With regard to Claims 1 and 13, Li teaches *a method and system of reporting on the quality of repair work performed on an article* (vehicle quality feedback module **60**) (see at least paragraph 0049) *comprising the steps of:*

- *(a) identifying occurrences of quality problems in repair* (difficult repair issues) *of an article* (vehicle, car) *at a repair facility* (repair shop) (see at least paragraphs 0049-0050).
- *(b) creating repair checkpoints in a repair facility* (each step of the repair process is scored) (see at least paragraphs 0037-0038).
- *(c) generating estimate data on the estimated cost for repairing the article, the estimate data being transferred to the database, said estimate data includes a repair estimate factor* (estimates for repairing the damage or other service work identified here) (see at least paragraph 0064).

- *(d) generating quality data (collects service information) on the occurrences of quality problems of step (a) at each repair checkpoint in a repair facility for an article (see at least paragraphs 0037-0040 and 0049).*
- *(e) electronically transferring the quality data to a computer database (database 95 contains information regarding particular servicing issues) (see at least paragraph 0049).*
- *(f) sorting (determine a pre-diagnosis) the quality data in the database utilizing said repair estimate factor for producing a report of said quality data which relates to industry indicators (see at least paragraph 0040).*
- *(g) producing a report of the sorted quality data (provides reports on which steps in the process need improvement) (see at least paragraph 0039).*

With regard to Claims 3 and 15, Li teaches *wherein the article is a vehicle (vehicle, car) and the repair facility is a vehicle repair facility (repair shop) (see at least paragraphs 0049-0050).*

With regard to Claims 4 and 16, Li teaches *wherein the quality problems are selected from the group consisting of incorrect estimate, failure to procure repair parts, procurement of incorrect repair parts, repair parts unavailable, improper welding, poor fit of parts, improper corrosion protection, poor workmanship (each step of the process is scored relative to how well a step was performed, incomplete repair, insufficient vehicle protection and improper refinish color match (see at least paragraphs 0037-0039)*

With regard to Claims 7 and 18, Li teaches *wherein the checkpoint comprises delivery of the vehicle to the repair facility, disassembly of the vehicle, frame repair, metal repair, mechanical repair, preparation for refinishing, application of refinish, reassembly of the vehicle and delivery of the vehicle to its owner (progress of the repair) (see at least paragraphs 0006-0007).*

With regard to Claims 8 and 19, Li teaches *wherein sorting* (determine a pre-diagnosis) *comprises reporting* (reports) *the quality data according to one of the repair checkpoints* (see at least paragraphs 0039-0040).

With regard to Claims 9, 10, 20, 21 Li teaches *wherein said repair estimate factor comprises one of: vehicle manufacturer, vehicle model* (vehicle ID), *vehicle year, insurance company, repair time, labor cost, parts cost, materials cost, total repair cost* (number of hours and cost associated with the repair), *repair facility overhead* (maintenance data), *geographic area* (location) *and repair level*. (see at least paragraphs 0045-46 and 0063).

With regard to Claims 10 and 25, Li teaches *wherein said report* (work order item) *having industry indicators comprising one of: repair shop problem, vehicle repair cost, vehicle reparability* (estimated labor hours and estimated monetary amount) *and vehicle insurance cost balance* (see at least paragraphs 0068-0073).

With regard to Claims 11 and 22, Li teaches *wherein (d), (e), (f) and (g) are performed on a computer network* (repair computer-networked system (see at least paragraph 0036).

With regard to Claims 12, 23, and 24, Pulford does not specifically teach *wherein the computer database of step (e) is maintained on a global communications network*. (global networks) (see at least paragraph 0040).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 6, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li as applied to claims 1, 3, 4, 7-13, 15, 16, and 18-25 above, and further in view of Kirkwood et al (Kirkwood) (U.S. Pub. No. 2003/0182181).

With regard to Claims 5 and 17, Li does not specifically teach *wherein the quality data includes information on the date of the repair and the report of step (e) identifies the quantity of quality problems in a time period*. Kirkwood teaches *wherein the quality data includes information on the date of the repair and the report of step (e) identifies the quantity of quality problems in a time period* (total of vehicles repaired within a time period) in analogous art of on-line performance analysis of a business entity for a vehicle repair shop for the purposes of, “enables a car repair body shop to customize and fine-tune its benchmarking” (see at least paragraphs 0024-0025).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the on-line performance analysis of a business entity for a vehicle repair shop as taught by Kirkwood with the vehicle warranty and repair method of Li. One of ordinary skill in the art would have been motivated to do so for the benefit of customizing and fine-tuning its benchmarking between a relevant group of franchises (Kirkwood, paragraphs 0024-0025).

With regard to Claim 6, Li does not specifically teach *wherein the report of step (e) compares the quantity of repairs having at least one occurrence of a quality problem in a time period to the total quantity of repairs performed in the time period*. Kirkwood teaches *wherein the report of step (e) compares the quantity of repairs having at least one occurrence of a quality problem in a time period to the total quantity of repairs performed in the time period* (historical comparison) in analogous art of on-line performance analysis of a business entity for a vehicle repair shop for the purposes of, “allows benchmarking of the business’ performance against its own forecast and/or its own prior performance results” (see at least paragraph 0030).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the on-line performance analysis of a business entity for a vehicle repair shop as taught by Kirkwood with the vehicle warranty and repair method of Li. One of ordinary skill in the art would have been motivated to do so for the benefit of a historical comparison to give an overview over a selected period of time (Kirkwood, paragraph 0030).

(10) Response to Argument

I.

A. Applicants submit that Li (U.S. Pub. No. 2002/0072808) does not teach in Claim 1: (1) *(a) identifying occurrences of quality problems in repair of an article at a repair facility* [see page 6, last paragraph], (2) *(c) generating estimate data on the estimated cost for repairing the article, the estimate data being transferred to the database, said estimate data includes a repair estimate factor* [see page 7, first paragraph], (3) *(d) generating quality data on the occurrences of quality problems of step (a) at each repair checkpoint in a repair facility for an article* [see page 7, second paragraph], (4) *(f) sorting the quality data in the database utilizing said repair estimate factor for producing a report of said quality data which relates to industry indicators*, (g) *producing a report of the sorted quality data* [see page 8, first paragraph through page 9, first

paragraph], (5) The Li publication fails to disclose a single combination of steps [see page 9, second paragraph].

B. Applicants submit that Li does not teach in Claim 13: (6) that the elements (a), (b), and (c) are absent from the Li publication.

II.

A. Applicants submit that Li in view of Kirkwood et al. (Kirkwood) does not teach in Claims 5 and 17: (7) using improper hindsight to form motivation to combine.

With regard to argument (1), the Examiner respectfully disagrees. Li teaches *(a) identifying occurrences* (identified as having particular and/or unique servicing issues) *of quality problems in repair* (difficult repair issues) *of an article* (vehicle, car) *at a repair facility* (repair shop) (see at least paragraphs 0049-0050). Additionally, the Applicants argue that repair issues are not **focused to a repair facility, overall efficiency** of the repair facility, and identifying **specific** occurrences (emphasis added). However, there is no one-to-one relationship between these arguments and the claim limitation. In fact, not only are the words of these limitations not explicitly recited in the claim, they are not even mentioned in the specification. In at least paragraphs 0049-0050 of the Li publication explicitly and/or implicitly teach monitoring servicing issues with a vehicle quality feedback module and utilizing a known issues database.

With regard to argument (2), the Examiner respectfully disagrees. Li teaches *(c) generating estimate data on the estimated cost for repairing the article, the estimate data being transferred to the database, said estimate data includes a repair estimate factor* (estimates for repairing the damage or other service work identified here) (see at least paragraph 0064-0069 and FIG's. 10-11, 18). Additionally, the Applicants argue that the estimate data is stored within a database with quality data. **This limiting feature is not recited within this claim limitation.**

With regard to argument (3), the Examiner respectfully disagrees. Li teaches *(d) generating quality data (collects service information) on the occurrences of quality problems of step (a) at each repair checkpoint in a repair facility for an article* (see at least paragraphs 0037-0040 and 0049). The Applicants argue that the quality data recited in this claim limitation is different from the scores used to relate how well steps were performed during the repair process of the Li publication. However, there is **no specific** characteristic, parameter, or metric that limits the broadly recited quality data in this claim limitation. Additionally, Applicants argue that this quality data is **“recorded”**; however, there is no mention of “recorded” in this claim limitation or the specification.

With regard to argument (4), the Examiner respectfully disagrees. Li teaches *(f) sorting (determine a pre-diagnosis) the quality data in the database utilizing said repair estimate factor for producing a report of said quality data which relates to industry indicators* (see at least paragraph 0040), and, *(g) producing a report of the sorted quality data* (provides reports on which steps in the process need improvement) (see at least paragraph 0039). Li teaches that system **10** provides for the administration of warranty and repair specific services along with service information from Dialog manager **20** to determine a pre-diagnosis from the analysis by the case based reasoning module **30**. Paragraphs 0036-0069 in the Li publication describe the case based reasoning module process in detail by utilizing, for example, the vehicle quality feedback module **60** (quality) and repair specific (estimate) service information to generate a pre-diagnosis (report).

With regard to argument (5), the Examiner respectfully disagrees. The Applicants state that the steps of the limitations in Claim 1 must be performed in the order that they are recited. However, there is no limitation within Claim 1 to indicate that these steps must be performed in a step-by-step order or manner as they are listed.

With regard to argument (6), the Examiner respectfully disagrees. Claims 1 and 13 are rejected together as being *method* and *system* claims, respectively. In at least paragraphs 0050-0053, Li teaches a known issues database **95** and an emerging issues database **96** that provide information regarding the entire repair process that is taught starting at paragraph 0036 of the Li publication. For element (a) in Claim 13, the Applicants state that the repair issues contained in the known issues database **95** are not relevant to a repair facility and that the Li system cannot identify occurrences of quality problems at a certain step of a repair process. However, element (a) in Claim 13 only recites collecting quality data. There is no **specific** recitation that the data collected must be of a repair facility or of **identifying** occurrences. With further regard to element (a) in Claim 13, the Applicants state that quality data is recorded regarding the occurrences of step (a). However, as also stated in the above argument (3), there is no specific limitation regarding **recording** quality data. Still further, the Applicants state that the quality data **facilitates identification of exact reasons** for a failure at a repair checkpoint and is used as a **baseline to compare** a repair facility against the database of repair facilities to determine if there is an abnormal amount of occurrences. These limiting features are not recited in Claims 1 or 13. However, the Li publication states in at least paragraphs 0037-0049 that each step of the repair process is scored to determine how well each step was performed by a technician and that the people involved in each step is recorded to determine where a technician is best suited within the repair process.

Regarding element (b) in Claim 13, the Applicants state the Li publication has no device that collects quality data on repair quality of checkpoints. In at least paragraphs 0049-0052 of the Li publication specifically states that a vehicle quality (i.e., performance) feedback module **60** determines particular and/or unique servicing issues based upon information in known issues database **95**.

Regarding element (c) in Claim 13, the Applicants state that the Li publication fails to teach software to sort quality data based on repair estimate factors. In at least paragraphs 0012 and

0040 of the Li publication, the case based reasoning module **30** (software) analyzes the service information to determine a pre-diagnosis. In at least paragraphs 0056-0069, the case based reasoning tool also provides estimated labor hours and estimated monetary amount to address a customer's vehicle problem.

With regard to argument (7), the Examiner respectfully disagrees. First, it should be noted that Claims 5 and 6 are not in proper dependent form, as they refer to the report in step (e) of Claim 1. Since Claim 1 was amended to produce a report in step (g), Claims 5 and 6 should have been amended accordingly. However, in light of this oversight, the Examiner based the claim rejections on the report produced in step (g) of Claim 1. In response to applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Additionally, Kirkwood teaches *wherein the quality data includes information on the date of the repair and the report of step (e) identifies the quantity of quality problems in a time period* as the total of vehicles repaired within a time period as part of the performance analysis reported by a graphical output which is part of a benchmarking process for a car repair body shop in at least paragraphs 0025-0037.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Art Unit: 3624

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Thomas Mansfield/

Examiner, Art Unit 3624

Conferees:

/Bradley B Bayat/

Supervisory Patent Examiner, Art Unit 3624

/Vincent Millin/

Appeals Conference Specialist